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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/321,967	05/28/1999	RICHARD L. FRANK	ORA99-09(OID)	7319
21005	7590	08/24/2004	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			ZHEN, LI B	
			ART UNIT	PAPER NUMBER
			2126	

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/321,967

Applicant(s)

FRANK ET AL.

Examiner

Li B. Zhen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-11, 19, 20, 32-39, 42 and 43 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6, 12-14, 17, 18, 21-25, 28-31, 40, 41, 44-46, 49-53 and 56 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 15, 16, 26, 27, 47, 48, 54 and 55 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/13/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. Claims 1-56 are pending in the application.

Allowable Subject Matter

2. Claims 7-11, 19, 20, 32-39, 42 and 43 are allowed.
3. Claims 3, 4, 15, 16, 26, 27, 47, 48, 54 and 55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1, 2, 5, 6, 12-14, 17, 18, 21-25, 28-31, 40, 41, 44-46, 49 – 53 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No.**

6,192,401 to Modiri [cited in previous office action] in view of U.S. Patent No 6,272,544 to Mullen.

7. As to claim 12, Modiri teaches [column 2, lines 20 – 45] a figure of merit [weighting value to each node] indicating a value for a member node to continue operation [base cluster membership upon weighting factor...by favoring most valued nodes]. As to querying an application program, Modiri teaches that the method of determining a figure of merit may be implemented in software [column 2, lines 60 – 62]. Modiri teaches that the cluster management software [software layer 250] and an application program [software modules in layer 220] determine a node's value [the software modules in layers 220 and 250 are responsible for determining the membership in the cluster; column 6, lines 30 – 35] and the cluster framework 220 includes modules such as the Cluster membership and quorum and reconfiguration 224 that provides reconfiguration decision making [column 4, lines 50 – 67].
8. Modiri teach querying an application program but does not specify a user application program.

However, Mullen teaches querying an user application [software facility] for a figure of merit [software facility...for dynamically assigning priorities, called "preference values" for the allocation of server resources to competing classes of work; col. 3, lines 45 - 52].

9. It would have been obvious to a person of ordinarily skilled in the art at the time of the invention to apply the teaching of querying a user application program as taught

by Mullen to the invention of Modiri because this rank service classes in terms of their relative levels of need for additional server resources [col. 2, lines 55 – 62 of Mullen].

10. As to claims 1 and 13, Modiri as modified teaches [column 2, lines 20 – 45] a management program [cluster management software, software layer 250, Fig. 2], an application program [software modules in layer 220, Fig. 2; column 6, lines 30 – 35] determining a figure of merit [the software modules in layers 220 and 250 are responsible for determining the membership in the cluster; column 6, lines 30 – 35] indicating a value for a member node to continue operation [base cluster membership upon weighting factor...by favoring most valued nodes]. As to querying a user application program, see the rejection to claim 12 above.

11. As to claim 24, this is a combination of claims 1 and 22; see the rejections to claims 1 and 22 above.

12. As to claim 40, this is a combination of claims 12 and 22; see the rejections to claims 12 and 22 above.

13. As to claim 41, this is a system claim that corresponds to method claim 24; see the rejection to claim 24 above, which also meets this system claim.

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14. As to claim 44, this is a system claim that corresponds to product claim 12; see the rejection to claim 12 above, which also meets this system claim.

15. As to claim 51, this is a combination of claims 44 and 50; see the rejections to claims 44 and 50 above.

16. As to claims 2, 14, 25 and 53, Modiri teaches [column 2, lines 40 – 46] assessing merit criteria for the member node to determine figure of merit [weighting value may be based upon various factors].

17. As to claims 5, 17, and 28, Modiri teaches [column 6, lines 45 – 50] a proposed figure of merit [static weight is set by configuration].

18. As to claims 6, 18 and 29, Modiri teaches [column 6, lines 45 – 60; column 8, lines 47 – 61] selecting between the proposed figure of merit [static weight] and an alternate figure of merit [dynamic weight].

19. As to claims 21, 30, 49 and 56, Modiri as modified teaches determining by the management program whether there is a user application program executing on the member node to query [col. 4, lines 5 – 15 of Mullen].

20. As to claims 22 and 50, Modiri as modified teaches querying a plurality of user application programs at a member node [col. 4, lines 6 – 23 of Mullen].

21. As to claims 23 and 31, Modiri as modified teaches voting by the user application program on the value of the member node to continue operation in the partitioned network cluster [software facility...for dynamically assigning priorities, called "preference values" for the allocation of server resources to competing classes of work; col. 3, lines 45 – 52 of Mullen].

22. As to claims 45 and 52, this is rejected for the same reasons as claim 1 above.

23. As to claim 46, this is rejected for the same reasons as claim 2 above.

Conclusion

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
Examiner
Art Unit 2126

lbz
August 20, 2004


MENG-AL T. AN
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